## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 9 September 2005 (09.09.2005)

PCT

## (10) International Publication Number WO 2005/082385 A1

(51) International Patent Classification<sup>7</sup>: 31/28, 31/663, 31/56, 31/57

A61K 33/24,

51726, 517005, 51750, 51757

(21) International Application Number: PCT/DK2005/000140

(22) International Filing Date: 28 February 2005 (28.02.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

PA 2004 00313 60/548, 529 26 February 2004 (26.02.2004) DK 26 February 2004 (26.02.2004) US

- (71) Applicant (for all designated States except US): OSTE-OLOGIX A/S [DK/DK]; c/o Symbion Science Park, Fruebjergvej 3, DK-2100 Copenhagen Ø (DK).
- (72) Inventors; and
- (75) Inventors/Applicants (for. US only): HANSEN, Christian [DK/DK]; Rungsted Strandvej 19, DK-2950 Vedbæk (DK). NILSSON, Henrik [SE/DK]; Cort Adelersgade 4, st. th., DK-1053 København K (DK). CHRISTGAU, Stephan [DK/DK]; Ræveskovsvej 10A, DK-2820 Gentofte (DK). BONE, Henry, G., III [US/US]; 123 Moran Road, Gross Point, MI 48236 (US).
- (74) Agent: ALBIHNS A/S; H.C. Andersens Boulevard 49, DK-1553 Copenhagen V (DK).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: STRONTIUM-CONTAINING COMPOUNDS FOR USE IN THE PREVENTION OR TREATMENT OF NECROTIC BONE CONDITIONS

(57) Abstract: A method for the treatment and/or prophylaxis of an ostenonecrotic bone disease in a mammal in need thereof, such as, e.g., idiopathic or secondary osteonecrosis, avascular bone necrosis, glucocorticoid induced bone ischemia/osteonecrosis, Legg-Calve-Perthes disease and femoral head necrosis, the method comprising administering an effective dose of a strontium-containing compound (a) to the mammal. A method for the treatment and/or prophylaxis of an osteonecrotic bone disease, such as, e.g., idiopathic or secondary osteonecrosis, avascular bone necrosis, glucocorticoid induced bone ischemia/osteonecrosis and femoral head necrosis, in a mammal who is to be or is treated with a therapeutic agent (b) known to or suspected of inducing apoptosis and/or necrosis of bone cells, the method comprising administering a strontium-containing compound (a) in combination with (b).

